AMENDMENTS TO THE CLAIMS

Please AMEND claims 1-9 as follows.

1. (CURRENTLY AMENDED) A Residential Communications Gateway (RCG) device that is capable of providing broadband communications services over a plurality of standard Plain-Old-Telephone Service (POTS) lines, ~~where said POTS lines are of the normal type and do not require any modifications whatsoever, nor is any other additional equipment required to be installed in the Class 5 office or any other PSTN facility. Said~~ said RCG device comprising:

at least one POTS connection ~~or more connections~~ capable of connecting to a ~~the~~ Public Switched Telephone Network (PSTN) ~~via standard Plain Old Telephone Service (POTS) connections~~;

a wireless interface capable of connecting ~~to connect~~ to at least one of ~~other~~ wireless devices, ~~or~~ wireless Local Area Networks (LANS) and other RCGs ~~another RCG as well as a multitude of other RCGs using said wireless interface~~;

one of a USB, firewire ~~(IEEE 1394)~~, Ethernet and ~~or~~ other physical layer connections capable of ~~that may be or become standardized to connect~~ physically connecting to other equipment;

at least one ~~or more derived~~ POTS circuit capable of connecting ~~circuits that connect~~ to a ~~any~~ standard telephone device ~~devices~~;

a processor capable of

creating ~~method to create~~ an ad-hoc wireless network via direct wireless connections between devices, ~~as well as~~

hopping said wireless connections among ~~many far flung~~ other RCGs to create a network of wirelessly connected RCGs ~~that far exceeds the wireless transmission distance of any single point to point wireless connection, in order to expand coverage area and~~ to increase bandwidth, ~~said ad hoc hybrid network consisting of a multitude RCG devices each with one or more POTS connections to the LEC that are all used in conjunction to provide high speed, broadband services to~~ for a requesting RCG device wherein ~~the aggregate~~ an aggregated POTS bandwidth is faster than ~~many times~~ the speed of a single POTS line device ~~can derive by itself~~[;].

~~a method of~~ utilizing Voice over IP (VoIP), voice/data compression and IP packet routing and switched circuit techniques to communicate multiple derived telephone POTS circuits over a single POTS telephone line connected to ~~the~~ a Local Exchange Company (LEC)[;]

~~a method of utilizing Voice over IP (VoIP), voice/data compression and IP packet routing and switched circuit techniques to communicate multiple derived telephone POTS circuits~~ and over a wireless network[;].

~~a method for the assignment of~~ assigning individual and unique telephone numbers, as those used by the PSTN, to the derived virtual POTS circuits that are

carried over a single POTS circuit from the LEC, ~~said derived POTS circuits having unique individual telephone numbers so that they can be used in the same fashion as if they were provided directly from the LEC, and were said derived POTS circuits are directed to individual RJ11 connectors on the RCG to which standard telephone devices are attached and are used in the normal fashion, with each telephone device attached to its own unique telephone number~~.

2. (CURRENTLY AMENDED) ~~An~~ The RCG of claim 1, wherein the processor is capable of:

dynamically allocating ~~that dynamically allocates~~ the POTS and wireless bandwidth between multiple local voice circuits and local data demands as well as requests for that bandwidth made by remote RCG devices[;],

~~and that~~ dynamically allocating ~~allocates~~ its physically connected POTS bandwidth to other RCGs not physically connected to said POTS line(s), requesting said bandwidth[;], and

prioritizing ~~prioritizes~~ local as well as remote bandwidth requirements on both POTS circuits as well as wireless connections[;].

3. (CURRENTLY AMENDED) ~~An~~ The RCG of claim ~~claims~~ 1, ~~and 2 that dynamically allocates~~ wherein the processor is capable of:

allocating separate and physically diverse POTS lines or wireless connections into a multilink group, ~~capable of~~

aggregating the combined bandwidth of a plurality of said separate physically diverse POTS lines or wireless connections,

providing said aggregate bandwidth to the benefit of one of a single[, or] and a plurality of RCG devices ~~device~~ for the concurrent and high speed transmission of one of large ~~or~~ and multiple files[;],

and utilizing ~~that can utilize~~ at least one ~~or more~~ of the separate and physically diverse POTS lines or wireless connections that are physically connected to other remote RCG devices as stand alone connections that are not grouped in a multilink configuration to the benefit of a single or a plurality of RCG devices for the concurrent high speed transmission of large or multiple files[;].

4. (CURRENTLY AMENDED) ~~An~~ The RCG of claim 1, wherein the processor is capable of creating and maintaining ~~that creates and maintains~~ POTS ~~as well as~~ and wireless routing tables that constantly change and that are used to determine maximum routing efficiencies for Quality Of Service (QOS) and maximum bandwidth between local and remote POTS circuits and ~~as well as~~ broadband wireless connections.

5. (CURRENTLY AMENDED) ~~An~~ The RCG of claim 1, wherein the processor is capable of providing ~~that provides~~ dynamic bandwidth reallocation ~~on the fly~~ for a plurality of separate and physically diverse POTS lines and ~~or~~ wireless connections.

6. (CURRENTLY AMENDED) ~~An~~ The RCG of claim 1, wherein the processor is capable of providing ~~that provides~~ security by one of ~~numerous options such as~~ Wired Equivalent Privacy (WEP), Internet Protocol Security (IPSEC), combination of proprietary and public security protocols[;], and providing ~~provides~~ ~~ultra high~~ security by employing ~~these~~ standard security practices ~~described above in conjunction with proprietary routing of individual IP packets over separate physical POTS lines or wireless channels, thus making it very difficult or impossible for eavesdroppers to be able to monitor any conversation or data transfer since the individual IP packets are routed on the fly, in a completely random fashion, over completely separate and different POTS lines and/or wireless channels~~.

7. (CURRENTLY AMENDED) ~~An~~ The RCG of claim 1, further comprising ~~with~~ an automatically initiated account activation service whereby ~~simply~~ installing the RCG device will ~~cause it to~~ initiate ~~the~~ an equipment configuration, network configuration, equipment registration, account activation and billing services.

8. (CURRENTLY AMENDED) ~~An~~ The RCG of claim 1, wherein the processor is capable of creating ~~with automatic creation of~~ a wireless router table by polling other devices within its transmission range for their wireless routing tables.

9. (CURRENTLY AMENDED) ~~An~~ The RCG of claim 1, wherein the processor is capable of providing ~~that provides~~ a failsafe lifeline support for power failure. ~~Provides a means to allow users to have telephone service in the event of a power failure.~~

Please ADD the following new claims.

10. (NEW CLAIM) A method for aggregating, sharing and dynamically routing and allocating bandwidth from a plurality of wired and wireless networks that are geographically disbursed over a wide area, and providing some or all of the aggregated bandwidth to any user on an on-demand basis, the method comprising the steps of:

developing and updating a network table that comprises a list of nearby RCGs, their bandwidth capabilities over local, remote and wireless connections, and their location with respect to a requesting RCG;

determining an optimum amount of bandwidth needed for an immediate data transfer needs of the requesting RCG;

determining which of the nearby RCGs should be contacted for access to unused bandwidth to support a transfer of the requesting RCG, based upon their unused local bandwidth capacity, and a distance and a number of hops between the RCGs and the requesting RCG;

sending a request to the supporting RCGs asking for use of a portion of the unused bandwidth;

receiving responses from the supporting RCGs with information about how much bandwidth each selected RCG can share;

selecting which of the supporting RCGs to use for optimal use of needed bandwidth;

contacting the selected RCGs with control information for sending data to the requesting RCG;

sending packets of the data from the selected RCGs to the requesting RCG;

reassembling the packets of the data at the requesting RCG; and

relinquishing the bandwidth of each of the selected RCGs.

11. (NEW CLAIM) The method of claim 10, further comprising the step of sending a request to a single supporting RCG that has sufficient unused bandwidth for satisfying the request of the requesting RCG.

12. (NEW CLAIM) The method of claim 10, wherein each of the supporting RCGs can opt out of bandwidth sharing based upon local demand priority, and wherein local demand for bandwidth supersedes a request of a remote RCG for bandwidth sharing.

13. (NEW CLAIM) The method of claim 10, further comprising the steps of:

dynamically reallocating shared bandwidth of the supporting RCGs during multi-link data transfers as supporting RCGs opt out of bandwidth sharing due to local bandwidth demands; and

enlisting additional supporting RCGs to provide additional bandwidth.

14. (NEW CLAIM) The method of claim 10, further comprising the step of scheduling a data transfer to occur at a future date and time based upon at least one of anticipated network bandwidth availability, network congestion, and future notice of availability of the data of interest.